PATENT

App. Ser. No.: 10/670,715 Atty. Dkt. No. ROC920030293US1 PS Ref. No.: 1032.011883 (IBMK30293)

## IN THE CLAIMS:

1. (Currently Amended) A method for reducing latencies associated with accessing memory for more than one processors, each coupled with an associated private cache, the method comprising:

determining cache miss rates of the more than one processors when issuing cache requests against one or more private caches;

comparing the cache miss rates of the more than one processors; and allocating cache lines from a first private cache associated with a first processor to a second processor based upon the difference between the cache miss rate for the first processor and the cache miss rate of the second processor, wherein a latency to access the allocated lines of the first private cache by the second processor is greater than a latency to access cache lines of a second private cache associated with the second processor, and wherein the first private cache and the second private cache are at a same cache level.

- 2. (Original) The method of claim 1, wherein determining the cache miss rates comprises counting cache misses of each of the more than one processors.
- 3. (Previously Presented) The method of claim 1, wherein allocating cache lines comprises forwarding cache requests from the first processor to the second private cache associated with the second processor.
- 4. (Previously Presented) The method of claim 1, wherein allocating cache lines comprises selectively allocating cache lines based upon a priority associated with a cache request of the first processor.
- 5. (Currently Amended) A method for reducing cache miss rates for more than one processors, wherein the more than one processors couple with private caches, the method comprising:

monitoring the cache miss rates of the more than one processors;

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comparing the cache miss rates of the more than one processors to determine when a cache miss rate of a first processor associated with a first private cache of the private caches exceeds a threshold cache miss rate for the more than one processors;

forwarding a cache request associated with the first processor to a second private cache of the private caches in response to determining the cache miss rate exceeds the threshold cache miss rate;

replacing a cache line in the second private cache with a memory line received in response to the cache request; and

accessing the cache line in response to an instruction from the first processor, wherein a latency to access the cache line of the second private cache by the first processor is greater than a latency to access cache lines of the first private cache associated with the first processor, and wherein the first private cache and the second private cache are at a same cache level.

- 6. (Previously Presented) The method of claim 5, wherein monitoring the cache miss rates comprises not counting cache misses during a cold start, warm-up period.
- 7. (Previously Presented) The method of claim 5, wherein the cache miss rates are associated with more than one processor modules.
- 8. (Original) The method of claim 5, wherein the threshold cache miss rate is based upon an average cache miss rate for the more than one processors.
- 9. (Original) The method of claim 5, wherein forwarding the cache request comprises selecting the second private cache based upon a least recently used cache line associated with the private caches.
- 10. (Original) The method of claim 9, wherein selecting the second private cache comprises selecting a least recently used cache line based upon a processor module on which the first processor resides.

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11. (Original) The method of claim 5, wherein forwarding the cache request comprises selecting the cache request based upon a priority associated with the cache request.

12. (Original) The method of claim 5, wherein forwarding the cache request is responsive to a software instruction that overrides a result of comparing the cache miss rates to forward the cache request to the second private cache.

13-42. (Cancelled)

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